Presenter Biographies

Jack Ballantyne is an Associate Professor of Chemistry at the University of Central Florida (UCF) and the Associate Director for Research at the National Center for Forensic Science in Orlando, Florida. His current duties include teaching and conducting research in forensic molecular genetics. He teaches a variety of forensic biology courses to baccalaureate and Masters level students in the Forensic Science Program and nucleic acid biochemistry to Ph.D. students in the Biomolecular Sciences Program. His research interests include Y-Chromosome markers, the assessment and in vitro repair of damaged DNA templates, mRNA profiling for body fluid identification, the determination of physical characteristics by molecular genetic analysis and single cell/low copy number analysis. Prior to entering academia, Dr. Ballantyne was a casework forensic scientist in Scotland, Hong Kong, and New York, where he proffered expert testimony in the criminal courts of these jurisdictions. He was the full-time DNA technical leader in Suffolk County, New York and since then has served as a part-time consultant DNA technical leader for Mississippi and Delaware, the city of Dallas, and Sedgwick County, Kansas. Dr. Ballantyne is the Chair of the New York State DNA Sub-Committee, a regular visiting guest at the Scientific Working Group on DNA Analysis Methods (SWGDAM), a member of the U.S. Department of Defense Quality Assurance Oversight Committee; he was a member of the World Trade Center Kinship and Data Analysis Panel (KADAP). He possesses a B.Sc. (with Honours) in Biochemistry from the University of Glasgow, Scotland, a M.Sc. in Forensic Science from the University of Strathclyde, Scotland, and a Ph.D. in Genetics from the University at Stony Brook, State University of New York.

F. Wayne Barte is a Senior Project Manager at the Office of Law Enforcement Technology Commercialization (OLETC), a highly qualified technical program under the National Institute of Justice. In this position, he assists developers in the commercialization of emerging and advanced technologies for use in law enforcement, corrections, and public safety. Before coming to OLETC in 1997, Mr. Barte worked as Director of Government and Regulatory Affairs, TCI Communications, Inc. He represented the corporation's legislative and regulatory interest in legislative proceedings at the Federal, state, and local level as well as acting as a corporate representative in telecommunications proceedings before state regulatory agencies. In addition, he held the position of Director of Franchising, managing a portfolio of 500+ telecommunications franchises throughout mid-South and middle-Atlantic states.

Mr. Barte began his professional career in 1973 when he entered the field of municipal management in Wheeling, West Virginia. He served as Assistant City Manager (1977-79) and as City Manager from 1979 through 1985. During this time, he was recognized as a leader in the privatization of traditional municipal services. Mr. Barte has a B.A. in Political Science from West Liberty State College and a M.A. in Corporate and Organizational Communication Studies from West Virginia University. He has also completed an Accelerated Undergraduate Business Curriculum (AUBC) and attended gradate school at the School of Business and Economics, West Virginia University.

John J. Behun is currently serving as the Senior Program Manager for DNA Backlog Reduction Programs at the National Institute of Justice (NIJ). Prior to his detail to NIJ, Mr. Behun was Chief of the Forensic Science Systems Unit of the FBI Laboratory, responsible for developing and managing such forensic database programs as the Combined DNA Index System (CODIS) and the National Integrated Ballistics Information Network (NIBIN). Mr.

Behun has served in the Federal Bureau of Investigation for almost 13 years in various management, budget, and analysis assignments. In 2001, he received the Arthur S. Flemming Award for Excellence in Management and Administration for his work on CODIS, NIBIN, and the installation of a secure telecommunications network connecting all public DNA laboratories in the country. A former Presidential Management Intern, he holds a Master's degree in International Affairs and Economic Policy from the American University.

Murray H. Brilliant has been the Lindholm Professor of Genetics in the Department of Pediatrics at the University of Arizona College of Medicine since 1997. Dr. Brilliant is the Chair of the Genetics Graduate Program at the University of Arizona and Chair of the Research Steering Committee of the Department of Pediatrics. He has held faculty positions at the Jackson Laboratory in Bar Harbor, Maine (1986-1989) and at the Fox Chase Cancer Center in Philadelphia, Pennsylvania (1989-1997). Dr. Brilliant has over 14 years of experience in the molecular genetics of pigmentation in mice and humans. His efforts have led to the identification of two of the four known genes involved in oculocutaneous albinism. Dr. Brilliant's laboratory has authored almost all of the publications to date on the functional analyses of the P and MATP proteins. These two genes (P and MATP) are also known to be major contributors to normal human pigment variation. He currently serves on the editorial boards of Pigment Cell Research and Mammalian Genome and has served on numerous National Institutes of Health review panels. Dr. Brilliant received his Ph.D. in Molecular, Cellular and Developmental Biology from the University of Colorado at Boulder in 1984.

Thurston L. Bryant is a Research Analyst contracted to the Investigative and Forensic Sciences Division, Office of Science and Technology, National Institute of Justice (NIJ), U.S. Department of Justice. He currently is responsible for providing program support in the administration of NIJ's Convicted Offender DNA Backlog Reduction Program. This program provides federal assistance to states for the DNA analysis of their convicted offender backlog samples. Mr. Bryant received his M.A. in Sociology and B.A. in Criminology/Psychology and Criminal Justice from Auburn University.

Eric Buel started working as an analyst for the Vermont Forensic Laboratory after obtaining his Ph.D in 1979. In 1998, he became Director of the Vermont Forensic Laboratory; in 1990, he established the DNA analysis program for Vermont. Dr. Buel has been active in forensic DNA analysis on a national level and is currently serving as an ASCLD board member. He has been a member of Technical Working Groups for DNA Analysis Methods and for Crime Scene Investigation. Dr. Buel is on the editorial review board for the Journal of Forensic Sciences and has written a number of papers on subjects concerning drug and DNA analysis. He received a Bachelor's degree in Chemistry from the University of Delaware and a Ph.D. in Biochemistry from the University of Missouri at Kansas City.

Thomas F. Callaghan is Chief of the Federal Bureau of Investigation's CODIS Unit and Chairman of the National DNA Index System Procedures Board. Dr. Callaghan has over 20 years of DNA analysis experience. His undergraduate studies at Penn State involved gene regulation. Dr. Callaghan received his Doctorate in Molecular Biology from Case Western Reserve University, where he worked on the molecular biology of viruses. Prior to joining the FBI, Dr. Callaghan was a Forensic Scientist with the Pennsylvania State Police DNA Unit, where he was involved in casework and setting up Pennsylvania's CODIS system. As Examiner

in the FBI DNA Analysis Unit, he was involved in the DNA analysis of hundreds of homicide and rape cases. In 1999, Dr. Callaghan initiated the Federal Convicted Offender Program at the FBI Academy. He currently serves as the NDIS Custodian and Chairman of the SWGDAM CODIS Committee.

Cassandra D. Calloway is a Co-Investigator with Dr. Henry Erlich for a National Institute of Justice funded project at Roche Molecular Systems (RMS) to develop a rapid, immobilized probe assay for the detection of mitochondrial DNA variation in the non-coding region. At RMS, she has been engaged in the research and development of the LINEAR ARRAYÔ Mitochondrial DNA HVI/HVII Region-Sequence Typing Kit, which is now commercially available. In addition, she has helped guide mitochondrial DNA beta studies and collaborative projects with over 20 laboratories worldwide. Her major interests include the analysis of polymorphisms and the characterization of heteroplasmy in the mitochondrial genome for human identification and disease susceptibility. She is also currently working on her Ph.D. in Comparative Biochemistry in the laboratory of Dr. George Sensabaugh at the University of California, Berkeley. She received her B.S. and M.S. in Genetics at the University of Georgia. While at the University of Georgia, she also conducted research to characterize heteroplasmy in the control region of mitochondrial DNA at the Georgia Bureau of Investigation and in collaboration with RMS.

Eric Carita is employed by the Connecticut Department of Public Safety as a Research Analyst at the State Forensic Laboratory. He received his Bachelor's degree from Eastern Connecticut State University and his Master's in Applied Genomics from the University of Connecticut's recently created Center for Applied Genomics and Technology (CAGT). Mr. Carita focused his graduate research within the field of plant DNA typing; he is currently a Ph.D. candidate at the University of Connecticut, where he is in the process of developing a multiplex plant STR typing system for marijuana (Cannabis sativa).

Winston C.H. Chen has been at the Oak Ridge National Laboratory since 1974. In 1976, he and his colleagues developed resonance ionization spectroscopy (RIS) to give the first demonstration of single atom detection; this led to a 1976 R&D-100 award, an award to the top 100 inventions of the year chosen by Industrial Research. He subsequently extended RIS for isotope selective rare gas atom counting, which was awarded a R&D-100 in 1984. Dr. Chen has been involved in research work related to the development of ultra-sensitive detection technologies for applications in various fields. These include (1) crystal laser beam monitor (R&D-100, 1987), (2) Non-CFC Freon Detector (R&D-100, 1992), (3) in situ real time superconducting film monitor, and (4) vacuum ultraviolet ionizer mass spectrometer. Dr. Chen's most recent efforts in developing new technologies for DNA analysis include (1) mass spectrometry for DNA sequencing, (2) genetic disease diagnosis, (3) mutation evaluation due to contaminants, and (4) DNA typing for forensic application. Due to his contribution to the development of ultra-sensitive detection technology, he was honored as American Physical Society Fellow in 1995. He has obtained eight U.S. patents and published more than 170 papers

in referred journals. He became associate editor of Rapid Communication in Mass Spectrometry in 1994. Dr. Chen received his B.S. degree from National Taiwan University in 1969 and his Ph.D. in 1974 from the Chemistry Department, University of Chicago.

Cecelia A. Crouse is currently Supervisor of the Serology and DNA Section at the Palm Beach County Sheriff's Office. Her primary responsibilities include research, development, and application of DNA technologies for casework as well as testing of casework evidence and administrative duties. Dr. Crouse has been a high school science teacher at and a Plant Geneticist with Eli Lilly and Company in Indianapolis, Indiana. She has been a member of the American Prosecutors Research Institute DNA Faculty for the past six years. She is a member of the Forensic Science Summit: Roadmap to the Year 2000 National Institute of Science and Technology, Gaithersburg, Maryland and a group reporter for the Laboratory Funding Group for the National Commission for the Future of DNA Evidence commissioned by Attorney General Janet Reno. She has also been co-organizer for Florida Crime Laboratory Council Advanced DNA Training Sessions for the past ten years. Dr. Crouse is the annual co-organizer for the STR MegaPlex Advanced Training and Research Workshop, a member of the working group for the Attorney General's Initiative on DNA Laboratory Analysis Backlog (AGID-LAB) commissioned by Attorney General John Ashcroft, and a member of the Journal of Forensic Science Editorial Review Board. She received a Bachelor of Science degree from Michigan State University, East Lansing, Michigan, and a Ph.D. from the Department of Microbiology and Immunology at University of Miami School of Medicine, Miami, Florida. As a Post Doctoral Fellow at the Bascom Palmer Eye Institute, she researched the physiologic role of HIV and Herpes Simplex viruses in the cornea.

Phillip B. Danielson is an Associate Professor of Molecular Biology at the University of Denver, where he teaches courses in, Virology/Infectious Human Disease, Immunology, Human Molecular Biology and Forensic Science. Prior to assuming his current faculty position, he received research training at the University of Tokyo's Department of Biochemistry and Biophysics, the University of Colorado at Boulder's Department of Molecular, Cellular, and Developmental Biology, and the University of Denver's Department of Biological Sciences. His research program encompasses studies in neuroendocrinology, molecular toxicology, and forensic genetics (particularly the application of new technologies for rapid DNA profiling). Dr. Danielson works in collaboration with forensic scientists from the Denver Police Department Crime Laboratory Bureau. Together with the officials from the Denver Police Department, the Colorado District Attorneys Council, and State Crime Laboratories, he has developed training programs for law enforcement professionals on the use of DNA evidence in criminal investigations. His work has been featured in both academic and professional journals and magazines, including the Proceedings of the National Academy of Sciences, The Scientist magazine, USA Today, and Law Enforcement Technology magazine. At the invitation of the National Law Enforcement and Corrections Technology Center for the Rocky Mountain Region, Dr. Danielson has developed a series of informational seminars for first responders on the real and perceived threats associated with potential acts of chemical/biological terrorism.

B. Michael Dann, an Arizona trial judge for 20 years, chaired the Arizona Jury Trial Reform Committee and has spoken in over 35 states and in four other countries in support of the kinds of trial innovations and reforms adopted and used in Arizona. He received the 1997 Rehnquist Award for Judicial Excellence at the U.S. Supreme Court for his national work in jury

trail reform. After he retired from the trial bench in 2000, Judge Dann accepted a visiting fellowship at the National Center for State Courts, where his work focused on jury trial and judicial selection reforms and on science and law issues. In 2003, he began a fellowship at the National Institute of Justice, U.S. Department of Justice, where he is conducting research on ways to improve juror comprehension of DNA trial presentations. His recent articles on juries and jury trial innovations include "Jurors as "Stakeholders" in Efforts to Objectify the Standard of Care in Healthcare Litigation," 37 Wake Forest Law Review 948 (2002); and "Jurors and the Future of Tort Reform," 78 Chicago-Kent Law Review 1127 (2003). Judge Dann has also published on the topics of judicial selection and judicial and lawyer performance review. He received his undergraduate education at Indiana University and his law degrees at Harvard Law School (LL.B.) and University of Virginia Law School (LL.M.).

Kerri Dugan joined the Counterterrorism and Forensic Science Research Unit of the Federal Bureau of Investigation in 2000 as a Research Biologist and currently serves as group leader of the Biological Sciences group within the Counterterrorism and Forensic Science Research Unit (CTFSRU). Most of her research focuses on mitochondrial DNA analysis techniques, SNP genotyping, and DNA extraction. Dr. Dugan attended the College of William and Mary where she earned B.S. and M.A. degrees in Chemistry. She performed her doctorate work at Princeton University and received a Ph.D. in Molecular Biology for her work on the c-Myc and E2F-1 oncogenic transcription factors.

Debra Figarelli currently serves as the Phoenix Police Department Laboratory Services Bureau DNA Technical Manager. She is responsible for assisting the Laboratory Administrator in the operation of a full-service crime laboratory and for the technical operation of the forensic biology section of the laboratory. Ms. Figarelli has worked in the area of forensics for 17 years and was instrumental in establishing the DNA program at the Phoenix Police Department Laboratory. She works closely with that National Forensic Science Training Center in Largo, Florida, to provide laboratory auditing and training to the forensic community. Prior to accepting the position at the Phoenix Police Department Laboratory Services Bureau, Ms. Figarelli was employed by the Arizona Department of Public Safety as the DNA Technical Manger for their statewide DNA program. Her first forensic science position was with the United States Department of Justice Drug Enforcement Administration Southwest Laboratory located near San Diego, California. Ms. Figarelli is a member of the FBI's Scientific Working Group on DNA Analysis Methods (SWGDAM), an American Society of Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB) training inspector, and the co-chair of the ASCLD mentoring committee. She is a graduate of Northern Arizona University.

David Foran is an Assistant Professor in the Forensic Science Program at Michigan State University, where he designed and directs the graduate level Forensic Biology concentration. Prior to accepting this position, he was a professor at The George Washington University, where he initiated and directed the graduate Forensic Molecular Biology track. The research in Dr. Foran's laboratory at Michigan State includes four major tiers: developing techniques to more accurately and reliably obtain and analyze genetic information from forensic samples; providing a better understanding of how, when, and why certain forensic samples or methods produce results while other do not; participating in historical studies of wide public interest; and conducting casework. The graduate students in his laboratory are actively involved in these projects. Each learns how to conduct, as well as the principles behind, the standard serology and

molecular biology methods used in forensic science laboratories. Further, each is involved in unique research designed to add to the knowledge base and workings of the forensic community. Dr. Foran received his Ph.D. in Molecular Genetics from the University of Michigan, and was a postdoctoral Fellow at the Ludwig Institute of Cancer Research and McGill University in Montreal. He served as a research associate at the University of California at Santa Cruz, where he developed techniques for species and individual identification of domestic and wild animal species.

Linda Gilmer is a Laboratory and Research Specialist II in the Department of Cell Biology at the University of Virginia. She began her career at UVA in 1989 as a Laboratory Specialist in the Department of Pathology. Since then she has served in the Departments of Medicine, Molecular Physiology, and Surgery. Ms. Gilmer performs and troubleshoots experimental protocols and techniques such as cell culture, PAGE agarose electrophoresis, Western Blotting, ELISA, plasmid preps, immunoprecipitations, indirect immunofluorescent microscopy, TLC, PCR, DNA isolation, transfections, cell fractionation, densitometry, protein isolation and concentration determination. She earned a B.S. and an M.S. in Biology at Old Dominion University.

Nils Goedecke has been a Research Scientist for the BioMEMS Laboratory at the Whitehead Institute for Biomedical Research since 2003. His current work is focused on development of a microfluidic chip based DNA analyzer developed for forensic STR applications. Mr. Goedecke has been involved in microfluidic chip-based projects since 1996. He completed his Master's degree in Biophysics at Humboldt University Berlin (Germany) in 1999 and his Ph.D. coursework in analytical chemistry at Imperial College London (United Kingdom) in 2003. He is currently completing his Ph.D. thesis "Evaporation Driven Liquid Flow in Microchannels" for submission later this year.

Michael Hammer is a research scientist in the Division of Biotechnology at the University of Arizona, with joint appointments in Anthropology and Ecology and Evolutionary Biology. Since 1991, he has been Director of the Laboratory of Molecular Systematics and Evolution (LMSE), a molecular biology core facility that provides training and other DNA services at the University of Arizona. He spent six years as a post-doctoral fellow, first at Princeton University and then at Harvard University, where he began studies to develop the non-recombining portion of the human Y chromosome (NRY) as a genealogical tool. In the last decade, his research group and collaborators have published a series of articles reporting results of studies of NRY variation in human populations. These studies have demonstrated the utility of different classes of Y chromosome markers for both long-term evolutionary studies and studies of closely related human populations. This research has been supported by the National Institutes of Health and the National Science Foundation. In 1997, the National Institute of Justice awarded a grant to support a collaborative effort between the laboratories of Dr. Hammer and Dr. Susan Narveson at the Phoenix Police Department Laboratory Services Bureaus (PPDLSB) to develop a set of male-specific markers for use in forensic typing laboratories. The main goals were to (1) identify of a set of polymorphic markers mapping on the NRY that are robust in forensic analysis, (2) develop detailed protocols for high throughput, fluorescence-based typing of these markers, and (3) establish a NRY database for U.S. population groups. Dr. Hammer received his Ph.D. in Genetics at the University of California, Berkeley in 1984.

Sarah V. Hart was nominated by President Bush to be the Director of the National Institute of Justice (NIJ), the research, development, and evaluation agency of the U.S. Department of Justice and the only Federal agency solely dedicated to researching crime control and justice issues. Ms. Hart was confirmed by the U. S. Senate by a vote of 98-0 and sworn in as Director of NIJ on August 7, 2001. From 1995 to August 2001, Ms. Hart served as Chief Counsel for the Pennsylvania Department of Corrections. She currently serves on the Pennsylvania Supreme Court's Appellate Procedural Rules Committee. Previously, she served for 16 years as a prosecutor in the Philadelphia District Attorney's Office (nine years as lead counsel in litigation involving the Philadelphia prison system). While serving in the Pennsylvania corrections system, Ms. Hart provided substantial assistance to the Judiciary Committees of the U.S. Congress in drafting the Prison Litigation Reform Act (PLRA) and the November 1997 amendments to the PLRA. She worked to develop legislation in Pennsylvania relating to prison litigation reform, community empowerment, and crime victims; and she has provided extensive training on the PLRA and other corrections legal issues to professional associations in the corrections field.

Ms. Hart previously served as Vice Chair of the Legal Affairs Committee of the American Correctional Association, Chairman of the Sentencing and Corrections Subcommittee of the Federalist Society, and member of the Board of Directors of the Crime Victims Law Institute. She has published articles concerning federalism, corrections, and criminal law. Ms. Hart is a graduate of Rutgers School of Law where she served as an associate editor of the Law Review. She received her B.S. degree in Criminal Justice from the University of Delaware.

John C. Herr is Professor of Cell Biology and Urology at the University of Virginia School of Medicine where he founded [1990] and directs the Center for Research in Contraceptive and Reproductive Health. He is a reproductive and developmental biologist with a focus on the discovery of novel genes and proteins that are expressed specifically in the sperm and in the egg. His laboratory studies proteins involved in gamete development [spermatogenesis and oogenesis], capacitation, and fertilization. Dr. Herr has an interest in translational research resulting from his basic studies. Objectives of this translational research include discovering sperm-specific markers of use in detecting sperm in sexual assault evidence. Dr. Herr has identified sperm proteins found only in sperm and in the testis and not in any other tissue in the human body. Several of these proteins are also specific for the sperm head, while others are specific for the sperm tail. Monoclonal antibodies directed to these proteins have been directly labeled with fluorescent dyes and mixed in a reagent called SpermPaint. SpermPaint is anticipated to improve the detection of sperm especially in cases where heads and tails have separated or where sperm are adherent to and masked by other cell types such as vaginal epithelium. Dr. Herr has received several awards, including the 2002 Alumni Award for Achievement from the University of Iowa Medical School, the Outstanding Scientist Award for the State of Virginia in the Year 2000, and the Henderson Inventor of the Year Award from the University of Virginia Patent Foundation in 1999. He is an inventor on 40 issued or pending patents.

Stacia Jackson is currently a Contractor through Lockheed Martin Information Technology in the Office of Science and Technology at the National Institute of Justice. At NIJ, she is a Program Assistant in the Investigative and Forensic Sciences Division, providing support to Federal Program Managers and assisting program support on the Paul Coverdell National Forensic Sciences Improvement Act Program. This program provides funding to state and local

crime laboratories and medical examiner's offices. Stacia Jackson graduated from West Chester University in December 2002 with a B.S. in Criminal Justice. She has interned at the Pennsylvania Equine Toxicology and Research Laboratory and the Forensic Services Section at Prince George's County, Maryland, Police Department.

Robin Wilson Jones is Principal Officer of RWJ Consulting Services. RWJ Consulting Services provides policy, strategic planning, and projects management expertise to the criminal justice community. Specific projects include subcontracted technical support through Lockheed Martin Information Technology to the National Institute of Justice (NIJ). NIJ projects include the International Association of Chiefs of Police National Summit on DNA Technology, Process Mapping and support for strategic planning and policy analysis to the Chief of the Investigative and Forensic Sciences Division. RWJ Consulting Services is also engaged with the National Forensic Science Technology Center (NFSTC), where Ms. Jones serves as Program Manager for a Presidential Initiative to develop an interactive CD-ROM training and resource tool for officers of the court on forensic DNA evidence. The project includes coordination with the Executive Branch of the United States government and a defined group of subject matter experts in the field of forensic science and law. Consultation is also provided the NFSTC to mange all activities related to subcontract management, IT programming, secure web-based information sharing, and interactive media components to be included in distance learning programs.

Patricia Kashtan is a Program Management Support Analyst contracted by ACS to the Technology Assistance Division of the Office of Science and Technology at the National Institute of Justice (NIJ), U.S. Department of Justice. She is currently responsible at NIJ for the administration of the Crime Laboratory Improvement Program and the Forensic Resource Network Congressionally Directed awards. Prior to working at NIJ, Ms. Kashtan worked for ten years at Orchid Cellmark, a forensic DNA identification laboratory in Germantown, Maryland. She assisted with the financial and administrative management of Forensic client accounts and the development of an "on site" Laboratory Information Management System.

Margaret Kline has worked at the National Institute of Standards and Technology (NIST) since 1985. At NIST, she has been conducting inter-laboratory studies and working on various Standard Reference Materials. She has worked in the DNA Human Identity projects since their beginning at NIST in 1989. Ms. Kline previously worked at the Frederick Cancer Research Facility for more than five years in the Fermentation Program; she isolated and purified candidate anti-tumor antibiotics from fermentation broths. Ms. Kline received an M.S. degree from the University of Maryland in 1979.

Kenneth L. Klotz is a Research Practitioner IV: Laboratory Specialist Advanced in the Department of Anatomy and Cell Biology at the University of Virginia. He has been at UVA since 1976 when he became a Research Assistant in the Department of Microbiology. Mr. Klotz is the co-author of numerous journal articles—*Clinical Cancer Research*, *Reproductive Biology & Endocrinology*, *Biology of Reproduction*—and book chapters. He received his B.A. and his M.Ed. from the University of Virginia.

Carll Ladd is Supervisor of the DNA Unit at the Forensic Science Laboratory and an Adjunct Assistant Professor at the University of Connecticut. He is currently the Connecticut Forensic Science Laboratory representative to SWGDAM (Scientific Working Group on DNA

Analysis Methods). Dr. Ladd obtained his Ph.D. in Molecular Biology and Genetics from the University of Connecticut in 1990 and conducted postdoctoral DNA research at St. Francis Hospital, Hartford, Connecticut.

Richard C. Li is an Assistant Professor in the Forensic Science Program, College of Criminal Justice at Sam Houston State University (SHSU). Prior to coming to SHSU, he served as a criminalist at the Department of Forensic Biology, Office of Chief Medical Examiner in New York City. Dr. Li's current research interests include forensic analysis of biological and toxicological evidence. He received his Ph.D. in Molecular Biology from the University of Wisconsin-Madison and an M.S. in Forensic Science from the University of New Haven.

Laurie E. Locascio is a Team Leader and Supervisory Biomedical Engineer in the Analytical Chemistry Division within the Chemical Science and Technology Laboratory at National Institute of Standards and Technology (NIST). Her current research efforts involve the design and application of microfluidic chemical systems, also known as lab-on-a-chip devices. This work focuses on the development of new methods for microfabrication and microsystems integration; development of fundamental methods for accurately measuring flow and temperature in microsystems; development of new methods for improved microchemical separations and detection; and the development of microscale methods to facilitate single molecule measurement and manipulation. Much of her earlier work involved the development of new methods for low-level detection of clinical and environmental analytes utilizing biological receptors for analyte recognition and employing both optical and electrochemical elements. Dr. Locascio has published more than 75 scientific papers and has filed for six patents in the fields of microfluidics, biosensors and sensor/flow systems. Some of her honors and awards include the following: U.S. Department of Commerce Certificate of Recognition; U.S. Department of Commerce Bronze Medal Award; NIST Applied Research Award; and National Tour Speaker for the Society of Applied Spectroscopy. She is a member of the journal of Analytical Chemistry Editorial Advisory Board, the American Chemical Society, the American Association for the Advancement of Science, and Sigma Xi. Dr. Locascio is a participant in review panels for the ATP, DAPRA, NSF and NIH. She was co-chair of the 2003 Gordon Research Conference on the Physics and Chemistry of Microfluidics and will chair that conference in 2005.

Kevin Lothridge is Acting Chief of the Investigative and Forensic Sciences Division, Office of Science and Technology at the National Institute of Justice. For the last five years he has been the Deputy Executive Director for the National Forensic Science Technology Center (NFSTC), a member of the National Institute of Justice Forensic Resource Network (FRN). The NFSTC provides service to the forensic service community in the areas of Quality System support, education and training. Mr. Lothridge has held the positions of forensic chemist, chief forensic chemist, and laboratory director at the Pinellas County Forensic Laboratory. His areas of operational expertise are drug chemistry, fire debris analysis, and detector dogs. Mr. Lothridge is a Past President of the American Society of Crime Laboratory Directors (ASCLD). He has a B.S. in Forensic Science and an M.S. in Management.

Bruce R. McCord is an Associate Professor of Analytical and Forensic Chemistry at Ohio University. He joined the faculty there in the fall of 1998 and is currently Director of the Forensic Chemistry program. His present research interests involve the development of

chromatographic methods in forensic chemistry; this includes studies of the use of capillary electrophoresis, CE, with laser induced fluorescence for the forensic analysis of microsatellite DNA, and investigations into the interactions between DNA and soluble polymer buffers. Other aspects of his forensic work include the inline extraction of drugs of abuse from biological matrices using monolithic polymer stationary phases and extensive work on the development of analytical systems such as CE, ion chromatography and liquid chromatography/mass spectrometry in the investigation of explosives residue. His current research is supported by grants from the National Institute of Justice, the J. Edgar Hoover Foundation and the National Science Foundation.

Prior to joining the faculty at Ohio University, Dr McCord spent nine years as a research chemist at the Federal Bureau of Investigation's Forensic Science Research Unit. He will be leaving Ohio University on August 13 to take up a new position as Associate Professor of Chemistry at Florida International University. He is a current member of the editorial board of the Journal of Capillary Electrophoresis, the Council of Forensic Science Educators, and the Forensic Science Institute of Ohio. Dr. McCord received a B.S. in Chemistry with Honors from the College of William and Mary in 1981,and a Ph.D. in Analytical Chemistry from the University of Wisconsin-Madison in 1986.

Brian McKenna is the Senior Software Engineer for the BioMEMS Laboratory at the Whitehead Institute for Biomedical Research. He leads the software group whose current projects include software to fully automate the DNA and STR sequencers developed by the lab, post processing applications including allele calling, data management and data visualization applications. A 1991 graduate of the Wentworth Institute of Technology in Boston, Massachusetts, he is an experienced engineer who has led the software efforts of several successful commercial instrumentation projects in biomedical and other industries.

John S. Morgan is the Assistant Director for Science and Technology of the National Institute of Justice. As Assistant Director, Dr. Morgan manages the agency's science and technology portfolios and provides strategic science policy advice for the Director and the Department of Justice. Dr. Morgan also serves as the Science Advisor to the Assistant Attorney General for the Office of Justice Programs and Program Director of the GLOBAL Justice Information Sharing Initiative. Prior to coming to NIJ, Dr. Morgan conducted research in detection and mitigation of weapons of mass destruction at the Johns Hopkins University Applied Physics Laboratory. He developed mass spectrometry systems for detection of chemical and biological warfare agents, studied methods to protect aircraft from terrorist attack, and developed building and infrastructure protection strategies. His research interests have also included non-destructive evaluation, spacecraft contamination control, high-temperature superconductivity, and high bandgap semiconductors. Dr. Morgan served eight years in the Maryland House of Delegates, serving on the Judiciary, Ethics, and Commerce and Government Matters Committees. He received his Ph.D. in Materials Science and Engineering from the John Hopkins University in 1990 and his B.S. in Physics from Loyola College in Maryland in 1984.

Susan D. Narveson manages the Crime Laboratory Improvement Program and the Forensic Resource Network for the National Institute of Justice in Washington, D.C. Prior to accepting this assignment, she served as the Laboratory Services Bureau Administrator for the Phoenix Police Department, where she was responsible for managing the operation of a full service crime laboratory. Ms. Narveson began her career in forensics with the Phoenix Police

Department in 1979. In 1981 she accepted a position with the Arizona Department of Public Safety, where she worked for 17 years; she was named the Assistant Superintendent of the Scientific Analysis Section in 1997. The following year, she accepted the position of Administrator of the Laboratory Services Bureau for the Phoenix Police Department.

In 1988 Ms. Narveson had the privilege of working with the Federal Bureau of Investigation's first group of Visiting Scientists in the development of DNA analysis procedures and was instrumental in establishing DNA analysis capability for the state of Arizona and the city of Phoenix. She has been actively involved in the establishment, support, and monitoring of quality standards for forensic laboratories as a member of a number of national boards, committees, and organizations. Among these are the FBI Scientific Working Group on DNA Analysis Methods, the College of American Pathologists Forensic Identity Committee, and the FBI DNA Advisory Board. In addition, she has served as Chair of the American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB) DNA Proficiency Review Committee, as an ASCLD/LAB Inspector and Team Captain, and as the President of the American Society of Crime Laboratory Directors (2001-2002). She received her Bachelor of Science degree in Chemistry in 1975 from Arizona State University.

Janice A. Nicklas has been with the Vermont Forensic Laboratory since November 2001 performing research into better methods to quantitate human DNA. Dr. Nicklas received her B.S. in Biology from the California Institute of Technology in 1975 and a Ph.D. in the field of Genetics from Princeton University in 1981. She completed three postdoctoral fellowships in the fields of genetics and immunology at Tufts Medical School, the University of Minnesota and the University of Vermont. She became a Research Assistant Professor of Medicine at the University of Vermont in 1986 and a Research Associate Professor of Medicine in 1993. While at the University of Vermont, Dr. Nicklas performed molecular genetic research into the genetic effects of mutagens in the environment and has approximately 65 papers in this area. She also directed the DNA Analysis Facility of the Vermont Cancer Center for six years and directed the Molecular Diagnostics Laboratory for the University Hospital for two years. She was a Fellow in the Harvard Genetics Training Program in 1996-1997 and 2000-2001. Dr. Nicklas has board certification in Clinical Molecular Genetics from the American Board of Medical Genetics.

Steve Niezgoda has been working as a Technical Contractor for the National Institute of Justice since 2002. Mr. Niezgoda is currently working on two projects for NIJ: providing support for the Convicted Offender DNA Outsourcing Program and finishing on the World Trade Center Lessons Learned Document. Mr. Niezgoda is a member of the Association of Computing Machinery and the American Society of Quality. He holds a B.S. in Civil Engineering and an M.B.A.

Thomas J. Parsons has worked at the Armed Forces DNA Identification Laboratory (AFDIL) since 1994, and currently holds the position of AFDIL Chief Scientist. One of his primary roles is to direct the AFDIL Research Section, where particular areas of emphasis include: development of high throughput robotic systems for mitochondrial DNA sequencing; mitochondrial DNA genomics for increased forensic discrimination; statistical interpretation of forensic data; mitochondrial DNA mutation rate and evolution; improved techniques for recovery of DNA from highly degraded sources; and bioinformatics. Dr. Parsons has received particular attention for his work related to an unexpectedly high mutation rate in human mitochondrial DNA and the identification of Tsar Nicholas II and his family. He was a finalist

for the 2001 Berry Prize in Federal Medicine. He serves on the Scientific Advisory Board of the International Commission on Missing Persons, as well as an expert advisory panel (KADAP) for data interpretation issues for the World Trade Center DNA identification efforts. Dr. Parsons is an adjunct faculty member in both the Departments of Genetics and Forensic Sciences at the George Washington University. He received his undergraduate degree in Physics from the University of Chicago; he received his Ph.D. in Biochemistry from the University of Washington. As a postdoctoral fellow at the Smithsonian Institution he focused on molecular evolution and phylogenetics, as well as mitochondrial DNA biogeography and avian speciation. He continued to research molecular systematics and population genetics during a research faculty appointment at the University of Nebraska.

Mark W. Perlin develops biomedical information and automation technologies. He has been working in the area of genetics for over ten years. Dr. Perlin invented linear mixture analysis and deconvolution-based STR genotyping technologies and directed the development of the TrueAllele™ automated data scoring software. He also invented the inner product mapping method (IPM) for rapidly building binned clone maps and led the project that produced the first clone map for human chromosome 11. He is the CEO and founder of Cybergenetics. Dr. Perlin holds adjunct faculty appointments in Computer Science at Carnegie Mellon University and Human Genetics at the University of Pittsburgh.

Dr. Perlin has had significant experience conceiving of and shepherding high-payoff automation projects to completion in a timely manner. Representative projects include automating the construction of genetic linkage maps, collaboratively producing the most complete map of the human genome (1993); automating the construction of binned clone maps (IPM, 1994), producing the first high-resolution clone map of human chromosome 11; automating the genotyping of microsatellite marker data, producing software that enables mapping of complex genetic traits (1995); introducing the commercial TrueAllele™ Technology for automated scoring of microsatellite data (1997); automating the analysis of STR forensic data, developing new computational methods for their robust processing (1999); and automating the resolution of DNA mixture data, devising new statistical methods for accurate genotype determination (2001).

Dr. Perlin received a B.A. in Chemistry from Binghamton University, State University of New York; a Ph.D. in Mathematics from City University of New York Graduate School; an M.D. from the University of Chicago Pritzker School of Medicine; and a Ph.D. in Computer Science from Carnegie Mellon University. He completed a transitional residency at Mercy Hospital in Pittsburgh and was a Fellow at IBM's Watson research facility in Yorktown Heights, New York.

Tim Schellberg is a Partner with the Governmental Affairs and law firm of Smith Alling Lane, which has offices in Tacoma, Washington; Washington, D.C.; and London, England. He resides in Gig Harbor, Washington. Mr. Schellberg and his firm have many law enforcement related clients, whom they represent at all levels of government. Over the last five years, Smith Alling Lane has assisted Applied Biosystems in tracking forensic DNA legislation and has served to develop related policy solutions. While representing Applied Biosystems, Mr. Schellberg has developed a comprehensive understanding of the forensic DNA debate in many state legislatures and U.S. Congress. Mr. Schellberg received his undergraduate degree from Washington State University in 1988 and his law degree from Seattle University in 1991.

George F. Sensabaugh, Jr., is a Professor of Forensic Science and Biomedical Sciences in the School of Public Health, University of California, Berkeley, where he has been on the faculty since 1972. He has over 150 publications in the areas of forensic science, human genetics, and evolutionary genetics. His professional activities include service on the editorial boards of *Journal of Forensic Sciences, Science and Justice,* and *Forensic Science Reviews.* He was a member of both National Research Council committees on DNA Technology in Forensic Science. Dr. Sensabaugh received the Paul L. Kirk Award from the American Academy of Forensic Sciences in 1987 and was President of the 18th Congress of the International Society for Forensic Haemogenetics in 1999. He has been a Visiting Professor at the University of Strathclyde, Glasgow, Scotland, and a Fulbright Research Scholar in London. Dr. Sensabaugh received a doctorate in Criminology (Forensic Science emphasis) from the University of California, Berkeley, in 1969 and subsequently did postdoctoral research at the University of California, San Diego, and the National Institute for Medical Research, London, England.

Gary G. Shutler is the DNA Technical Leader for the Washington State Patrol Crime Laboratory Division and is based in the Seattle Laboratory. He has over 26 years experience in forensic science. He has been with the Washington State Patrol since May 2002. Dr. Shutler's previous positions include service with the Royal Canadian Mounted Police (RCMP) Forensic Laboratory System in Ottawa and Winnipeg Laboratories. In the mid to late 1980s, he initiated the RFLP DNA Typing program for the RCMP prior to taking a period of educational leave. During the mid to late 1990s, his work included validation studies of PCR STR analysis and its casework application. He was involved with the genetic and physical mapping of the myotonic (muscular) dystrophy gene while completing his Doctorate Degree at the University of Ottawa in 1992. Dr. Shutler has authored and co-authored numerous scientific publications.

Ronald Sosnowski has been with Nanogen, Inc. since 1994 and was one of the original scientists to investigate the effects of electric fields on molecular interactions. He has subsequently developed several applications of this technology, including methods for genotyping, human identification and DNA amplification. In the field of human DNA identification, Dr. Sosnowski has received several patents, published peer-reviewed articles, and lectured internationally. He received his training as a Molecular Cellular Geneticist at Johns Hopkins University and the University of California, San Diego.

Amanda C. Sozer is the Director of DNA Technology Consulting Services, a company providing expertise, education, and management for DNA identification issues. She began her career in DNA identification in 1990 at Cellmark Diagnostics and then accepted a position at Fairfax Identity Laboratories; as the Associate Director, she managed all aspects of the laboratory operations for paternity, CODIS (the testing of convicted offenders), and forensics. Most recently, Dr. Sozer has been involved in the implementation of DNA collections from arrestees in Louisiana and support for the National Institute of Justice's DNA backlog reduction programs for no-suspect forensic cases and convicted offender samples. In addition, she facilitated the National Institute of Justice Kinship and Data Analysis Panel for the World Trade Center Victim Identification Program. Dr. Sozer is a former Regional Chair of the Parentage Testing Accreditation Unit of the American Association of Blood Banks, a member of the Human Identity Trade Association and a member of the American Society of Human Genetics, the American Academy for the Advancement of Science, the American College of Forensic Examiners, the American Society of Forensic Sciences and Phi Kappa Phi Honor Society. She

received her undergraduate degree from Rutgers University and her Ph.D. from the University of Tennessee-Oak Ridge Graduate School of Biomedical Sciences at Oak Ridge National Laboratory with a specialization in genetics and an emphasis in biotechnology.

Ted Staples is employed by the Georgia Bureau of Investigation (GBI)-Division of Forensic Sciences. He is Manager of the Forensic Biology Section and also serves as CODIS-DNA Database Administrator. Mr. Staples has been employed with the GBI since 1986. In 1991 he provided the first "GBI-DNA" testimony in Georgia. Mr. Staples was named technical leader for the DNA section in 1998 and began work on the DNA database; in 1999, he became Assistant Manager and in 2000 was appointed Manager. He has served on the Federal Bureau of Investigation's Scientific Working Group for DNA Analysis Methods-CODIS subcommittee, the National DNA Database (CODIS) Policies/Procedures Board, DNA advisory panels for the National Institute of Justice and the International Association of Chiefs of Police. In 2003, he was nominated for meritorious service award for the Peace Officer 's Association of Georgia. He received his Bachelor of Science from Georgia College in 1984 with a major in Biology and a minor in Chemistry. Mr. Staples received his Master of Science from the University of Georgia in 1986.

Stephanie Stoiloff is a Criminalist II with the Miami-Dade Police Department (MDPD) Crime Laboratory Bureau. She has worked in the Forensic Biology Section since 1998. Ms. Stoiloff's responsibilities include technical review of cases issued by MDPD, technical review of outsourced case data, assisting with National Institute of Justice grant applications, Assistant CODIS Administrator duties as well as casework responsibilities. In addition, Ms. Stoiloff is certified as an inspector by the American Society of Crime Laboratory Directors Laboratory Accreditation Board. She lectures in the application of DNA analysis to criminal investigations as part of the Medicolegal Investigation of Death courses offered by the Miami-Dade County Medical Examiner's Office as well as for Crime Scene Investigation training courses for the MDPD Training Bureau. She also serves as the liaison between the MDPD Crime Laboratory and the Miami-Dade County State Attorney's Office and has coordinated several trainings to teach the State Attorneys about Forensic Biology. In addition, Ms. Stoiloff is an adjunct professor at Florida International University and teaches Forensic Biology as part of the International Forensic Research Institute. She received her B.S. degree in Zoology in 1990 from the University of Florida and her M.S. degree in Biology in 1996 from Florida International University.

Melissa Taylor is a Program Assistant contracted by Lockheed Martin Information Technologies to the Investigative and Forensic Sciences Division of the Office of Science and Technology at the National Institute of Justice, U.S. Department of Justice. She is currently responsible at NIJ for the administration of the General Forensics Research and Development Program awards and the Crime Lab Improvement Program Congressionally Directed awards.

Mark Timken is a Criminalist at the California Department of Justice Jan Bashinski DNA Laboratory in Richmond, California, where he has worked for the past three years. He is a member of the Methods Development group and has worked on the development of automated methods for DNA extraction and PCR setup, as well as on development of assays for quantitative

real-time PCR. Prior to working for the California Department of Justice, Dr. Timken was an Associate Professor of Chemistry for 12 years at Widener University in Chester, Pennsylvania. He earned a Ph.D. in Chemistry from the University of Illinois, Urbana-Champaign.

Lois A. Tully is the Deputy Chief and Program Manager of the Investigative and Forensic Sciences Division of the National Institute of Justice's (NIJ) Office of Science and Technology, and the Program Manager of NIJ's Forensic DNA Research and Development Program. Prior to pursuing her Ph.D., Dr. Tully was employed by Cellmark Diagnostics as a staff molecular biologist and laboratory supervisor. She was the recipient of a National Research Council postdoctoral research associateship, which she performed at the National Institute of Standards and Technology (NIST) in the DNA Technologies Group. She received a B.S. in Medical Technology from Temple University, a M.S. in Forensic Sciences from the George Washington University, and a Ph.D. in Human Genetics from the University of Maryland at Baltimore.

Peter M. Vallone received his Ph.D. in Chemistry from the University of Illinois at Chicago in 1999. He worked with Dr. Albert S. Benight, studying the thermodynamic characteristics of short DNA oligomers utilizing the techniques of differential scanning calorimetry and optical thermal melting. In 1999, he came to National Institute of Standards and Technology (NIST) as a NRC Fellow working in the Biotechnology Division. Over the last four years, Dr. Vallone has worked in the DNA technologies group at NIST with Dr. John Butler developing multiplex assays for the detection of genetic variation within the human genome. Dr. Vallone has developed multiplex assays for the detection of SNPs located on the Y-Chromosome and in the mitochondrial genome for forensic evaluation. These assays are analyzed on various instrumental platforms such as mass spectrometry and capillary electrophoresis. In addition, he has also developed various bioinformatic software tools for the design of nucleic acid based assays.

Nick Viggiani is a Forensic Policy Analyst contracted by Lockheed Martin Information Technologies to the Investigative and Forensic Sciences Division of the Office of Science and Technology at the National Institute of Justice (NIJ), U.S. Department of Justice. He has been with NIJ for nearly two years. His primary responsibility is to provide program support for the Paul Coverdell National Forensic Science Improvement Act grant program. Prior to joining NIJ, Mr. Viggiani served for eight years as a police officer with the Prince George's County Police Department in Maryland, where he was assigned as a detective to the District III Investigative Section. Before joining the Prince George's County police department, Mr. Viggiani was a legislative assistant in the Washington, D.C. office of United States Congressman Michael R. McNulty. Mr. Viggiani received a B.A. in Government and International Studies from the University of South Carolina.

Pat W. Wojtkiewicz is Director of the Shreveport Laboratory of the North Louisiana Crime Laboratory System and Technical Leader of the DNA section. He has been employed at the crime laboratory since 1977. His first position was in the serology department where he worked in body fluid identification, blood typing, and hair and fiber analysis. In 1991, he moved to South Louisiana to pursue a Ph.D. in Molecular and Cellular Biology at Tulane University. While working on his dissertation, he was involved in forensic DNA analysis and training. Dr. Wojtkiewicz returned to the North Louisiana Crime Laboratory in 1995 as Director of DNA Research and Training. The DNA analysis unit has developed into a premier facility in the

country, utilizing the latest techniques to analyze DNA evidence. At the North Louisiana Crime Laboratory, DNA analysts and student interns are involved in applied research to improve and develop methods in DNA analysis. Dr. Wojtkiewicz has been involved in numerous workshops for training law enforcement officers and forensic DNA analysts. He is currently Technical Leader of the DNA Unit at the Louisiana State Police Crime Laboratory and adjunct Assistant Professor of Biology at Northwestern State University, Louisiana.